

AMENDMENT TO THE CLAIMS

1. (Currently Amended) A directed reflection light collecting device with planar reflectors, comprising two or more planar reflectors, an azimuth angle adjusting mechanism and an altitudinal angle adjusting mechanism, the azimuth angle adjusting mechanism including a base, supports, a circular rail with a central axial line and a driving mechanism, wherein the two or more planar reflectors are arranged in mutual parallel on a frame, the altitudinal angle adjusting mechanism including at least one transversal main turning shaft parallel with the planar reflectors, the frame being rotatably supported via this transversal main turning shaft on the supports of the azimuth angle adjusting mechanism, the altitudinal angle adjusting mechanism driving this frame in a controlled manner to move the planar reflectors, wherein [[the]] an altitudinal changing angle of the planar reflectors is half of [[the]] a sun altitudinal changing angle, the frame comprising two identical parallel connecting-rod mechanisms, respectively, on both sides of the planar reflectors, each connecting-rod mechanism comprising at least two parallel connecting rods in a length direction and two parallel connecting rods in a height direction pivotally connected between the two connecting rods in the length direction, the two connecting-rod mechanisms being pivoted therebetween by parallel pivoting rods, each of the planar reflectors being fixed on at least one pivoting rod to adjust the altitudinal angle of the planar reflectors and their mutual spacing with a movement of the parallel connecting-rod mechanisms, the planar reflectors having a rectangular shape, wherein connecting lines of four apexes of every two adjacent planar reflectors on a same side form a rhombus in which one of the diagonal lines of the rhombus is always parallel with the central axial line of the circular rail.

2. (Canceled)

3. (Canceled)

4. (Canceled)

5. (Canceled)

6. (Canceled)

7. (Canceled)

8. (Canceled)

9. (Canceled)

10. (Currently Amended) A directed reflection light collecting device with planar reflectors according to Claim [[5]] 1, wherein the altitudinal angle adjusting mechanism comprises a reciprocating linear moving mechanism and the transversal main turning shaft, ~~in which~~ the reciprocating linear moving mechanism ~~[[is]]~~ being connected to one of the connecting rods of the parallel ~~connecting-rod~~ connecting-rod mechanism via its moving part, a moving line of this part ~~[[is]]~~ being parallel with one diagonal line of the rhombus, ~~[[the]]~~ a linear movement of the moving part of the reciprocating linear moving mechanism pushing the movement of the parallel ~~four-connecting-rod~~ connecting-rod mechanism to adjust the altitudinal angle and spacing of the planar reflectors.

11. (Canceled)

12. (Canceled)

13. (Canceled)

14. (Currently Amended) A directed reflection light collecting device with planar reflectors according to Claim 10, wherein the reciprocating linear moving mechanism includes a screw and a nut connected with the screw, the nut being hinge supported on the connecting rod via a pin, and the screw being connected with ~~[[the]]~~ an output shaft of the altitudinal angle ~~driving~~ adjusting mechanism, a rotation of this output shaft turning the screw and further moving the nut connected with it to drive the parallel ~~four-connecting-rod~~ connecting-rod mechanism via the pin ~~[[on it]]~~.

15. (Canceled)

16. (Canceled)

17. (Canceled)

18. (Withdrawn-Currently Amended) A directed reflection light collecting device with planar reflectors according to Claim [[5]] 1, wherein the transversal main turning shaft of the altitudinal angle adjusting mechanism is in rigid connection with one of the connecting rods of the parallel ~~connecting-rod~~ connecting-rod mechanism, a straight line passing a connection point of this rigid connection ~~point~~ and parallel with one diagonal line of the rhombus intersects [[the]] an adjacent connecting rod at ~~another~~ an intersecting point, where a sliding block or pulley is provided and can slide along a straight sliding trough mounted between the connection point of the rigid connection ~~point~~ and the intersecting point, the transversal main turning shaft [[is]] being connected with a driving motor, including a reducer, of the altitudinal angle adjusting mechanism at one end.

19. (Currently Amended) A directed reflection light collecting device with planar reflectors according to Claim 1, wherein the driving mechanism ~~to adjust the azimuth angle~~ drives the supports and brings the planar reflectors on the frame to rotate around the central axial line of the circular rail to adjust its azimuth angle, [[the]] an azimuth changing angle of which being equal to [[the]] a sun azimuth changing angle, thereby realizing directed projection of sunlight in [[the]] a direction of the central axial line of the circular rail.

20. (Withdrawn-Currently Amended) A directed reflection light collecting device with planar reflectors according to Claim 19, wherein the driving mechanism ~~for adjusting the azimuth angle~~ comprises a motor, including a reducer, and friction wheels connected at an output end of the motor, ~~including a reducer, output end~~, the driving mechanism being fixed on [[the]] a supports bottom, and the rail [[is]] being in rigid integration with the base, the friction wheels [[are]] being in contact with the rail to drive the supports to rotate around the central axial line along the rail.

21. (Currently Amended) A directed reflection light collecting device with planar reflectors according to Claim 19, wherein the driving mechanism ~~for adjusting the azimuth angle~~ comprises a motor, including a reducer, and friction wheels connected at an output end of the motor, ~~including a reducer, output end~~, the driving mechanism being fixed on the base, the rail being in rigid connection with the supports and rotatably supported on the base via rollers or balls fixed on the base, the friction wheels [[are]] being in contact with the rail to drive the rail itself together with the supports to rotate around the central axial line.

22. (Canceled)

23. (Canceled)

24. (Canceled)

25. (Currently Amended) A directed reflection light collecting device with planar reflectors according to Claim 1, wherein the collecting device can also include a sensor to monitor ~~[[the]]~~ a sun position and a processing circuit, ~~[[the]]~~ an output signal from the sensor being output to the processing circuit to control the altitudinal angle and azimuth angle adjusting mechanisms.

26. (Original) A directed reflection light collecting device with planar reflectors according to Claim 25, wherein the sensor to monitor the sun position is comprised of a light shading post, photosensitive elements arranged in four directions around the post, and a base for burying the photosensitive elements at a certain depth, wherein for each photosensitive element, a reflection shading block is arranged to shade 1/6-1/2 of a receiving window close to a light shading post side wall.

27. (Canceled)

28. (Original) A directed reflection light collecting device with planar reflectors according to Claim 1, wherein the planar reflectors can be glass mirrors, or flat plates with high-efficiency light reflecting films applied onto their surfaces.